

Amdt. dated August 16, 2005
Reply to Office action of Jun. 16, 2005

Serial No. 09/972,010
Docket No. SJO920010093US1
Firm No. 0037.0101

REMARKS/ARGUMENTS

Applicants amended claim 15 and 17 to correct minor grammatical and punctuation errors. Applicants request entry of this amendment to correct these minor errors.

The Examiner rejected claims 1-20 as anticipated (35 U.S.C. §102(b)) by Linde (U.S. Patent No. 6,660,665). Applicants traverse.

Claim 1 recites a storage area network (SAN) including a first and second digital data processors executing a first and second operating systems, respectively, in communication with one or more storage devices, comprising: a first platform-specific process executing on the first digital data processor; a second platform-specific process executing on the second digital data processor, wherein the second operating system is different from the first operating system; common platform-independent processes executing on the first and the second digital data processors; and the platform-independent processes effecting execution of the first and second platform-specific processes via command line parameters.

The Examiner cited col. 4, lines 35-44 of Linde as teaching the claim requirements. (Final Office Action, pgs. 2-3) The cited col. 4 mentions a SAN having clients connected to server storage devices via a server. The server uses a front end driver to present disk images to the client system. A request for data will be translated by the server to the correct command sequence for a native device driver, which communicates with a storage device to obtain the data.

Thus, the cited Linde discusses a technique for a server to access data using a native device driver to present the data to client systems 1. Nowhere does the cited col. 4 disclose the claim requirements of common platform independent processes executing on first and second digital data processors effecting execution of first and second platform specific processes via command line parameters. Instead, the cited col. 4 discusses how a server translates a request for data to a command sequence for a native NT device driver. There is no disclosure in this cited col. 4 of platform independent processes effecting execution of first and second platform specific processes via command line parameters. Instead, the cited col. 4 concerns a server controlling a single device driver to request data.

The Examiner cited col. 4, lines 45-50 as disclosing the use of different operating systems. (Final Office Action, pg. 3) The cited col. 4 mentions that the server can communicate with device drivers for operating systems other than NT.

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Although the cited Linde discusses how a server may present disk images to clients, nowhere does the cited Linde disclose the specific combination of claim requirements of first and second platform-specific processes executing on first and second operating systems, respectively, such that the platform-independent processes on the first and second processors effect execution of the platform specific processes via command line parameters.

The cited Linde discusses how a server front end driver interface translates a request for data to a correct command sequence for a native NT device driver that communicates with the server storage device. Nowhere does this cited aspect of Linde disclose two platform independent processes effecting execution of first and second platform specific processes via command line parameters. The cited Linde discusses how one server front end driver may interact with the NT device driver. However, nowhere does Linde disclose multiple platform independent processes effecting multiple platform specific processes. Instead, the cited Linde discusses one server process (the front end driver) effecting execution of an NT driver to access server disks.

The Examiner further cited col. 4, lines 8-17 of Linde. (Final Office Action, pgs. 3-4) This cited col. 4, lines 8-17 mentions that the volume insight architecture presents a standard disk driver interface to the server system to service basic commands. These basic commands are translated by the server into commands of an underlying driver to control the I/O device. The overhead of the local translation does not effect operations of the client machine.

The cited col. 4 concerns the server translating basic commands from clients into commands of an underlying driver. Nowhere does this cited col. 4 anywhere disclose or mention two platform independent processes effecting execution of first and second platform specific processes via command line parameters.

In the Response to Arguments, the Examiner found that “[i]t is inherent that computing devices maintain command line functionality. It is further inherent that within network computing devices, processes and requests are transferred/communicated between devices through command lines.” (Final Office Action, pg. 16). Although command line functionality may be available, nowhere does the cited art disclose the particular claimed use of command line functionality to allow platform independent processes executing on different machines having different operating systems to effect execution of platform specific processes on the different machines. There is no mention in the cited Linde of the claim requirement of platform

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independent processes using command line parameters to effect execution of first and second platform-specific interfaces.

Accordingly, claim 1 is patentable over the cited Linde because the cited Linde does not disclose all the claim requirements.

Claims 2-14 are patentable over the cited art because they depend from claim 1, which is patentable over the cited art for the reasons discussed above. Applicants amended these claims to change the format of the claim requirements. Moreover, the following dependent claims provide further grounds of distinction over the cited art.

Claim 2 depends from claim 1 and requires that each of the platform-specific processes communicate with the platform-independent process via a command line interface of its respective digital data processor operating system.

The Examiner found that in FIG. 1 of Linde, when a file request is made through a network, the command is sent out by a process from each of the clients that is platform independent. The Examiner likens the command from the server for data to the platform independent process. (Final Office Action, pg. 4) However, nowhere is there any disclosure in the cited Linde that the clients effect execution of platform-specific processes via a command line interface. Further, the Examiner has not identified any part of Linde that discloses that platform specific processes communicate with platform independent processes via a command line interface.

Further, claim 2 requires that platform specific processes executed by different processes communicate with a platform dependent process in the same machine via a command line interface of the operating system on the processor. The cited Linde concerns how clients transmit data request over a network to a server. Nowhere does this cited Linde disclose or mention that platform specific processes on the first and second processors each communicate with the common platform independent process on the same machine via a command line interface. Further, nowhere does the cited Linde disclose or show that the clients communicate with the server via command line interfaces of the processors' operating system as claimed. Instead, in FIG. 1 the clients and the server are in different systems.

Accordingly, claim 2 provides additional grounds of patentability over the cited art because the additional requirements of these claims are not disclosed in the cited art.

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Claim 4 depends from claim 1 and further requires a manager in communication with the common platform-independent process to transmit a request thereto for information regarding one or more components of the SAN.

The Examiner cited the server of Linde as equivalent to the claimed manager. (Final Office Action, pgs. 4-5) Applicants traverse.

The cited server of Linde communicates with a native device driver to access a storage device. (col. 4, lines 35-45) Nowhere does the cited Linde disclose that the server communicates with common platform independent processes to transmit a request to these processes for information regarding components of the SAN. Instead, the cited server of Linde may receive data requests from the client, but Linde does not disclose the server transmitting requests to common platform independent processes on different processors for information on the SAN as claimed.

If the Examiner maintains this rejection, Applicants request that the Examiner show where Linde discloses that the server communicate with common platform independent processes that effect execution of first and second platform specific processes via command line parameters.

Accordingly, claim 4 provides additional grounds of patentability over the cited art because the additional requirements of these claims are not disclosed in the cited art.

Claim 6 depends from claim 5 and further requires that the invoked platform specific processes gather information regarding one or more SAN components and transmit the information to the Standard Output/Error of its respective digital data processor.

The Examiner found that anytime data is viewed, such as retrieved through a SAN, it must be transferred through standard output/error and that Linde discusses different I/O device types. (Final Office Action, pg. 5) Nowhere does the cited Linde anywhere disclose separate platform specific processes executing on different processors having different operating systems gathering information on SAN components and transmit the gathered information to the standard output/error. Instead, the cited Linde discusses how a server accesses storage devices.

The Examiner further cited col. 4, lines 8-17 of Linde against claim 6. (Final Office Action, pg. 5) This cited col. 4, lines 8-17 mentions that the volume insight architecture presents a standard disk driver interface to the server system to service basic commands. These basic commands are translated by the server into commands of an underlying driver to control

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the I/O device. The overhead of the local translation has not effect on operations of the client machine.

The cited col. 4 concerns the server translating basic commands from clients into commands of an underlying driver. Nowhere does this cited col. 4 anywhere disclose or mention that the invoked platform specific processes gather information regarding SAN components and transmit the information to the respective digital processor.

Accordingly, claim 6 provides additional grounds of patentability over the cited art because the additional requirements of these claims are not disclosed in the cited art.

Claim 9 recites that the manager comprises a query engine for transmitting the request to the common platform independent processes.

The Examiner cited the server of Linde as disclosing the claimed manager comprising a query engine. (Final Office Action, pg. 6) Applicants traverse.

The cited Linde discusses how a server communicates with a device driver to access a device and that the server translates client commands to a command sequence for a native device driver to access data. Nowhere does the cited Linde disclose that the server has a query engine for transmitting a request to common platform independent processes on different processors having different operating systems as claimed. Instead, the cited Linde discusses how the server translates client data requests to the command sequence for the NT device driver.

If the Examiner maintains this rejection, Applicants request that the Examiner show where Linde discloses that the server has a query engine that transmits a request to the common platform independent processes that in turn effect execution of platform specific processes via command line parameters.

Accordingly, claim 9 provides additional grounds of patentability over the cited art because the additional requirements of these claims are not disclosed in the cited art.

Claims 10-14 provide additional grounds of patentability over the cited art because they provide further details on the manager query engine.

Claim 15 substantially includes the requirements of claims 1 and 4 and, thus, is patentable over the cited Linde for the reasons discussed with respect to claim 1.

Claims 16-20 are patentable over the cited art because they depend from claim 15, which is patentable over the cited art for the reasons discussed above. Further, claims 16-19 include

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similar limitations to claims 6, 7, 9, and 10, and thus provide additional grounds of patentability over the cited art for the reasons discussed with respect to claims 6, 7, 9, and 10.

Added claims 21-26 substantially include the requirements of claims 2, 4, 5, 6, and 9 in computer readable media form and thus are patentable over the cited art for the reasons discussed above with respect to claims 2, 4, 5, 6, and 9.

Conclusion

For all the above reasons, Applicant submits that the pending claims 1-26 are patentable over the art of record. Applicants submit herewith the fee for the added claims. Nonetheless, should any additional fees be required, please charge Deposit Account No. 09-8466.

The attorney of record invites the Examiner to contact him at (310) 553-7977 if the Examiner believes such contact would advance the prosecution of the case.

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